

# National Adolescent Vaccination Update: Challenges in a Time of COVID

Shannon Stokley, DrPH  
Acting Deputy Director  
Immunization Services Division

Alabama Adolescent and Adult Vaccine Task Force

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**YOU WOULD DO  
ANYTHING TO  
PROTECT YOUR  
CHILD FROM  
CANCER. BUT  
HAVE YOU DONE  
EVERYTHING?**

HPV vaccine is cancer prevention for boys and girls. Just two shots at ages 11–12 provide safe and lasting protection against the infections that cause HPV cancer. Ask your child's doctor or nurse for HPV vaccine.

# Disclosures

- I work for the Centers for Disease Control and Prevention
- I have no financial interests to disclose.
- I will not be presenting on investigational products.
- I will not be presenting on the off-label use of products.

# Overview

- Adolescent vaccination coverage levels
- Impact of the COVID-19 pandemic on routine vaccination
- Catch-up campaign

# HPV vaccine recommendations



3 doses  
Age 11-12  
Catch-up through 26



3 doses  
Age 11-12  
Catch-up through 21

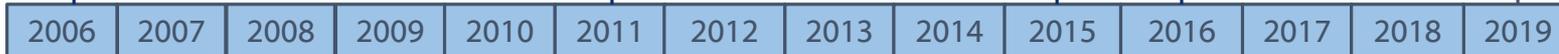
  
**GARDASIL<sup>®</sup> 9**  
Human Papillomavirus 9-valent Vaccine  
(Recombinant, adsorbed)



2 doses if start  
before age 15

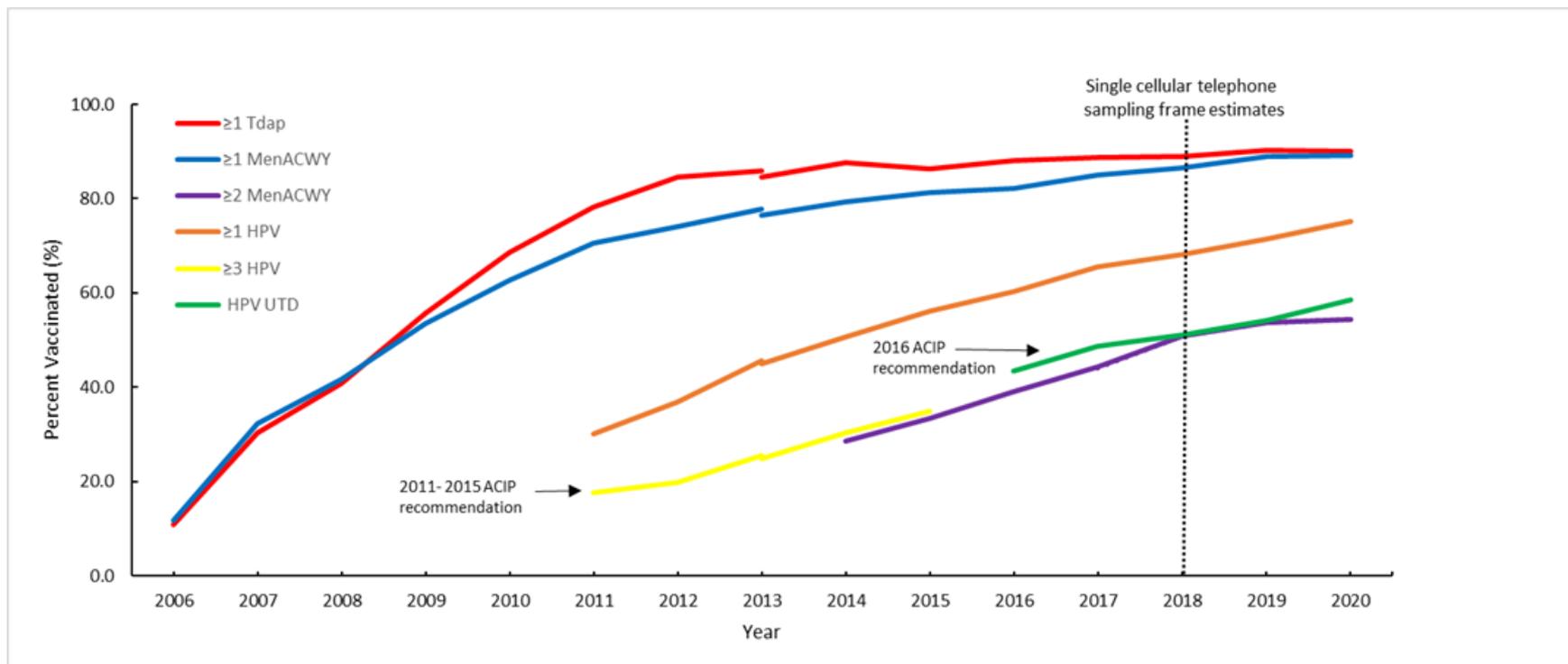


Catch-up through 26  
Age 27-45 based on  
shared clinical  
decision making



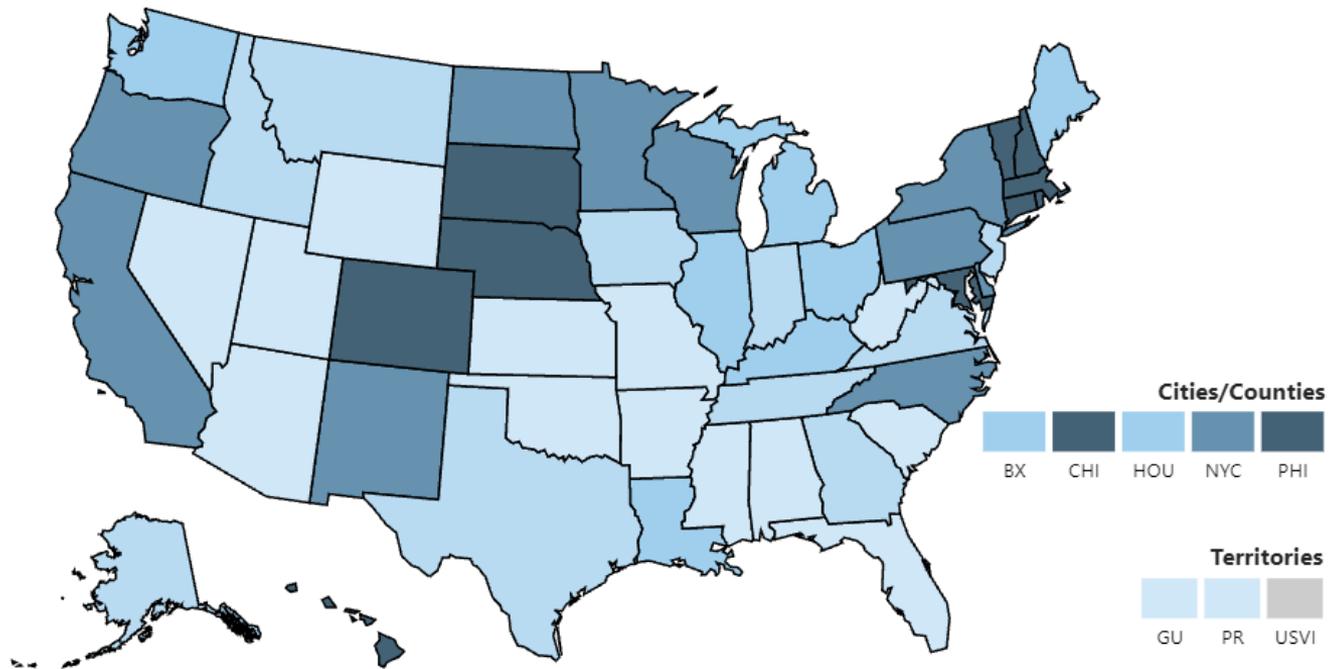
# Adolescent Vaccination Coverage

## Estimated vaccination coverage with selected vaccines and doses\* among adolescents aged 13-17 years, by survey year<sup>†</sup>—National Immunization Survey-Teen<sup>§, ¶</sup>, United States, 2006-2020

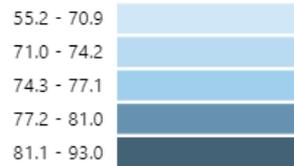


Abbreviations: Tdap = tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine; MenACWY = quadrivalent meningococcal conjugate vaccine; HPV = human papillomavirus; ACIP = Advisory Committee on Immunization Practices.

# Estimated vaccination coverage with $\geq 1$ HPV vaccine, 2020

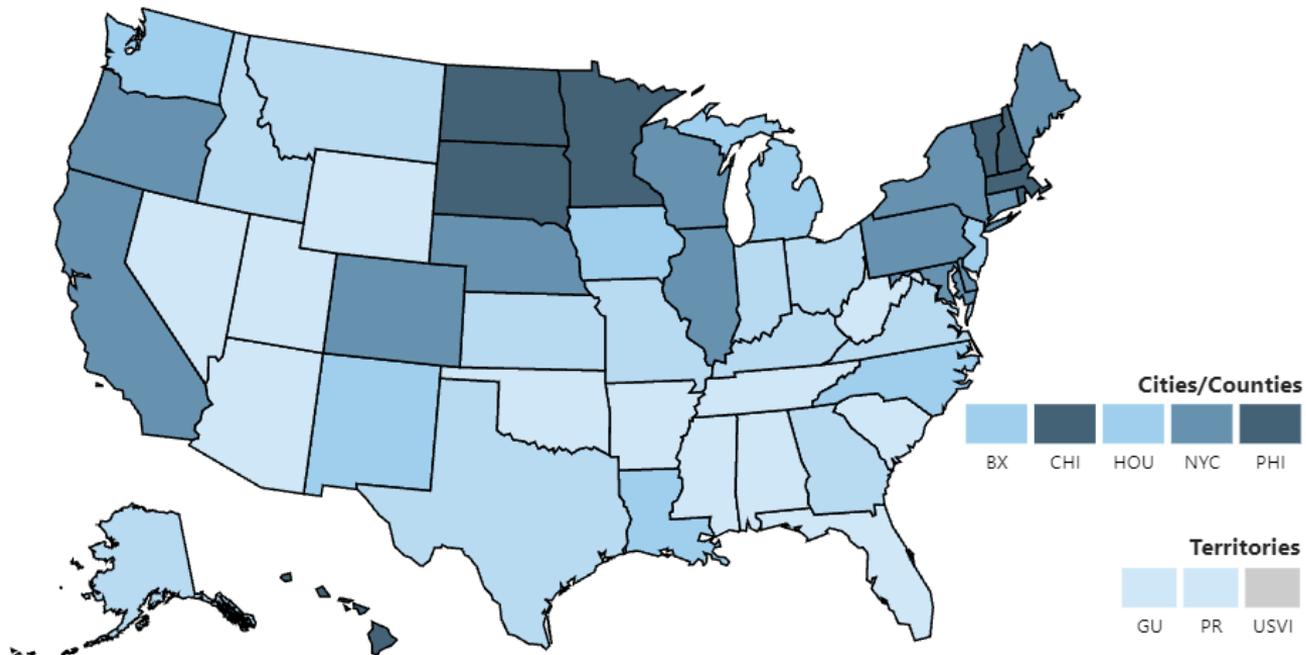


## Legend – Coverage (%)

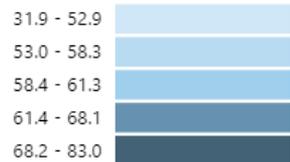


**National Coverage: 75.1%**  
**Range: 93.0% (RI) to 55.2% (MS)**  
**Alabama Coverage: 67.3%**

# Estimated HPV vaccine series completion, 2020

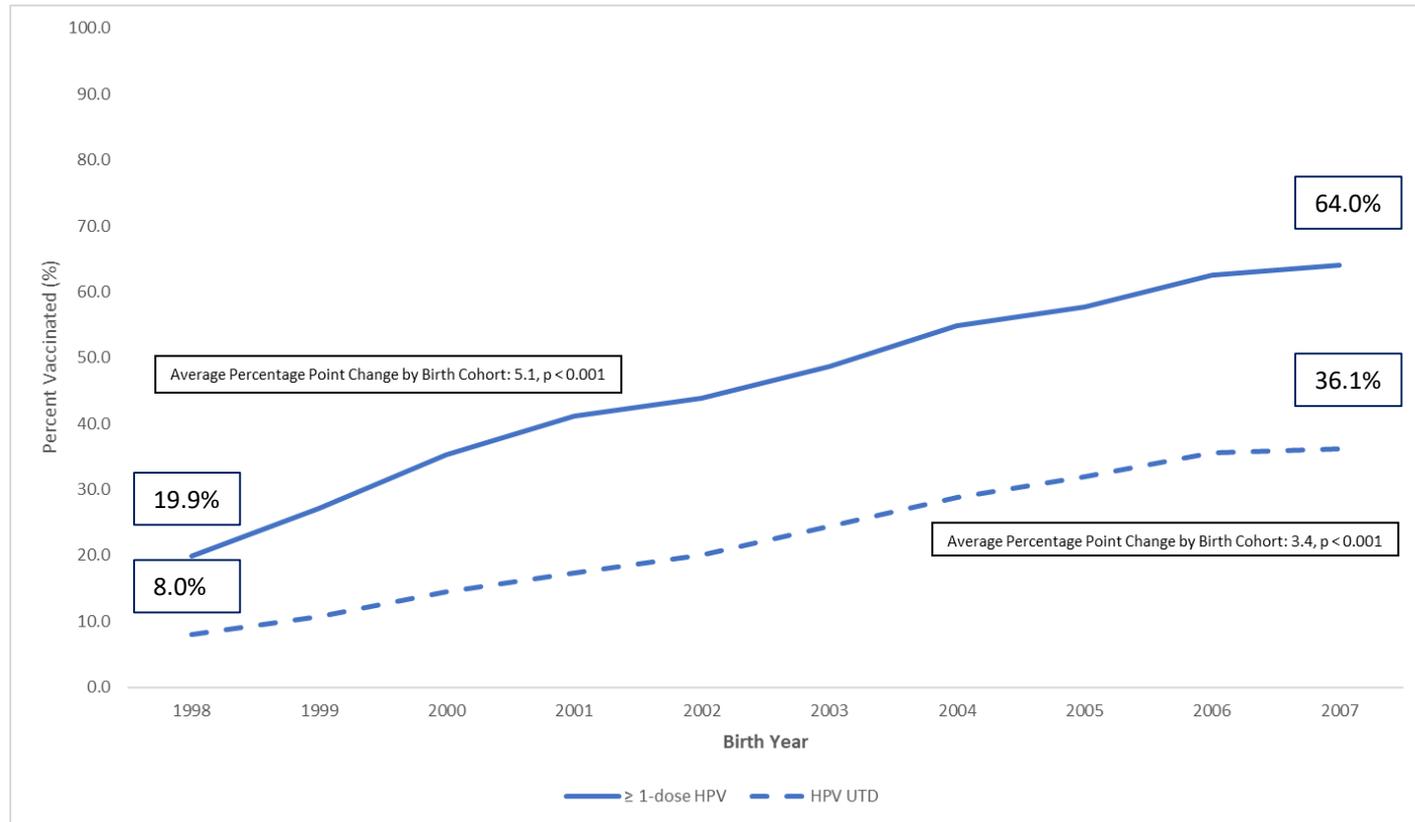


## Legend – Coverage (%)



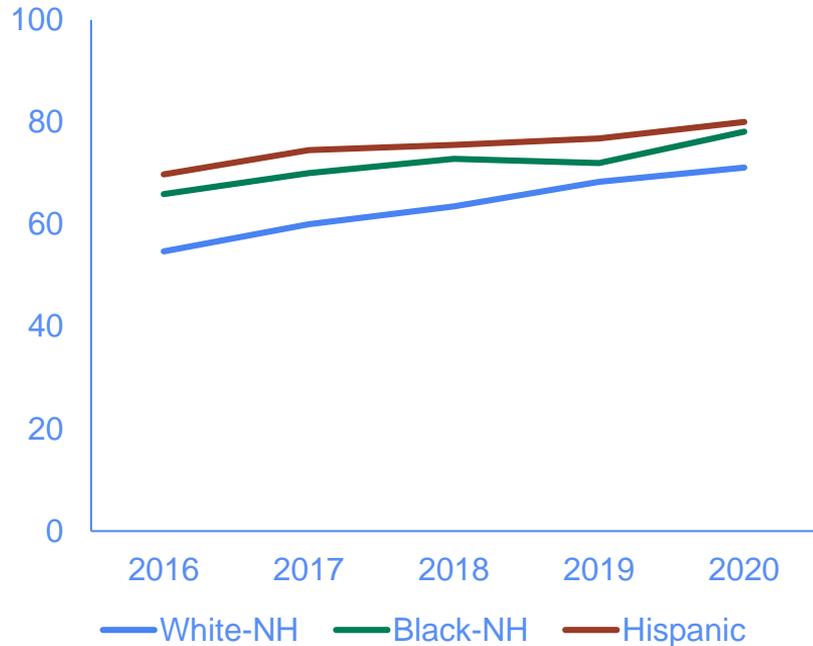
**National Coverage: 58.6%**  
**Range: 83.0% (RI) to 31.9% (MS)**  
**Alabama Coverage: 52.9%**

# HPV Vaccination Initiation ( $\geq 1$ -dose) and HPV UTD Estimates among Adolescents by Age 13 Years, by Birth Cohort, NIS-Teen 2011-2020, United States

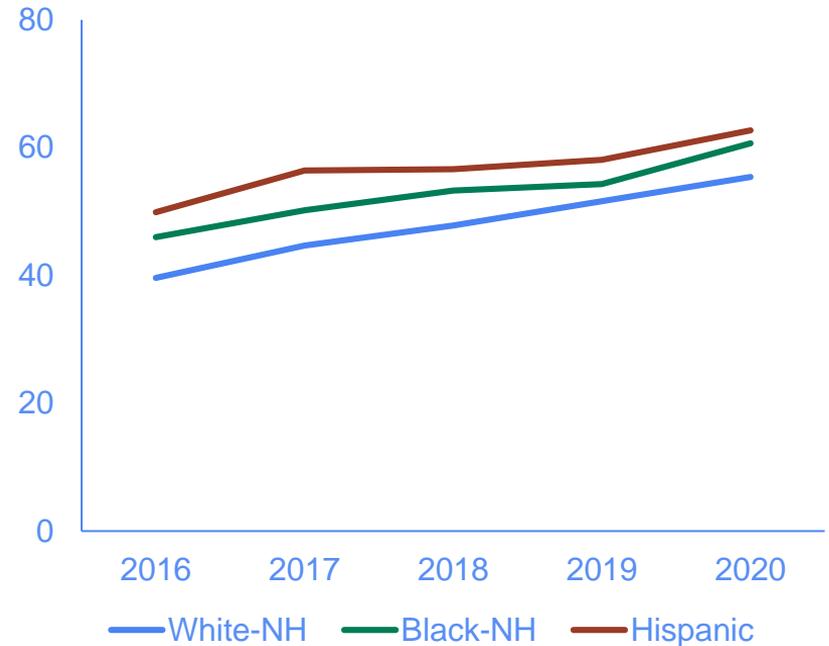


# HPV vaccination coverage among **White Non-Hispanic** adolescents is consistently lower

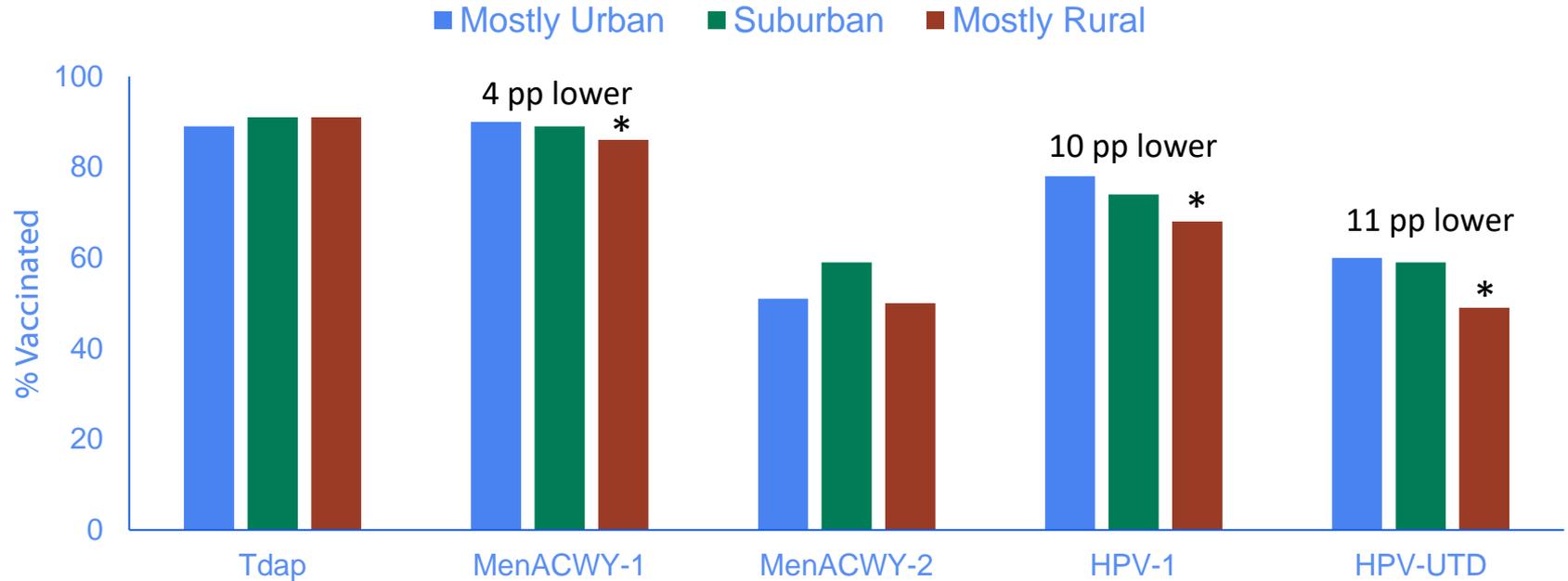
## First Dose



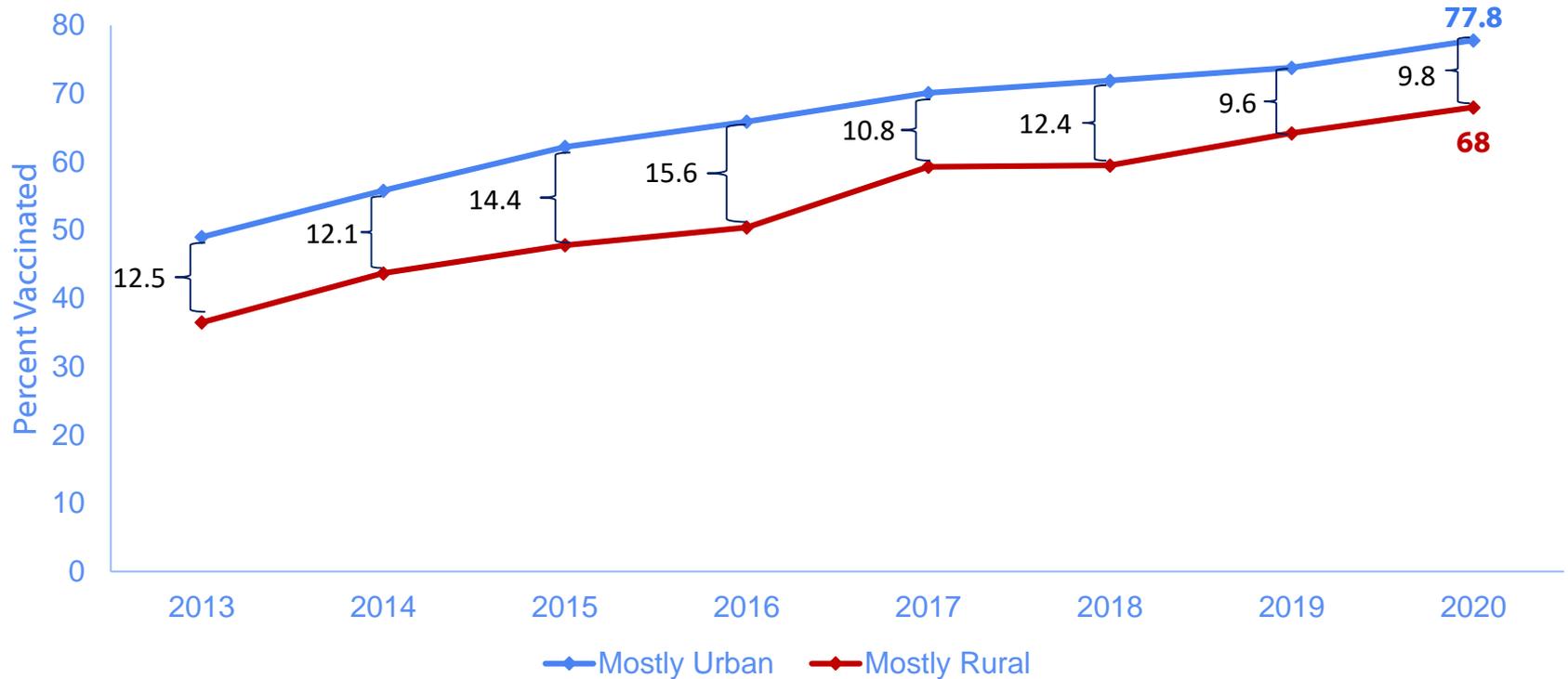
## Series Completion



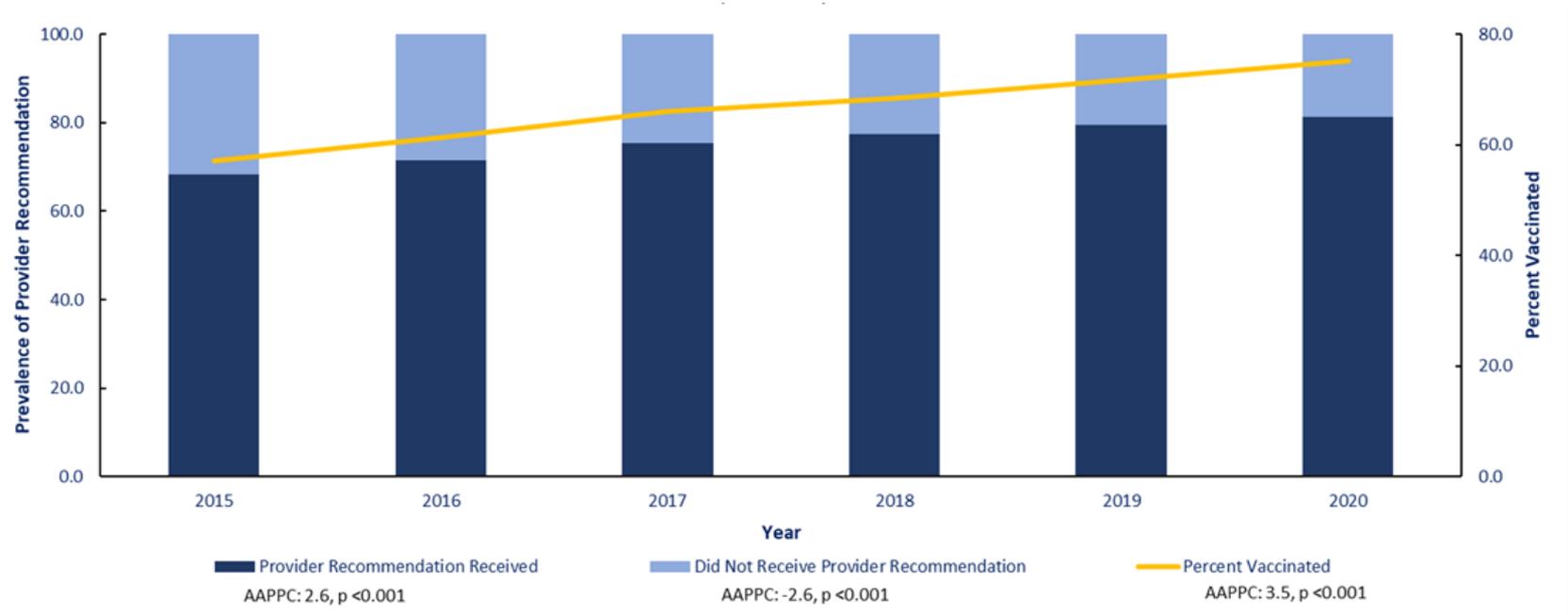
# Estimated vaccination coverage among adolescents 13-17 years of age by urbanicity



# ≥1 HPV vaccination coverage in rural areas is consistently lower

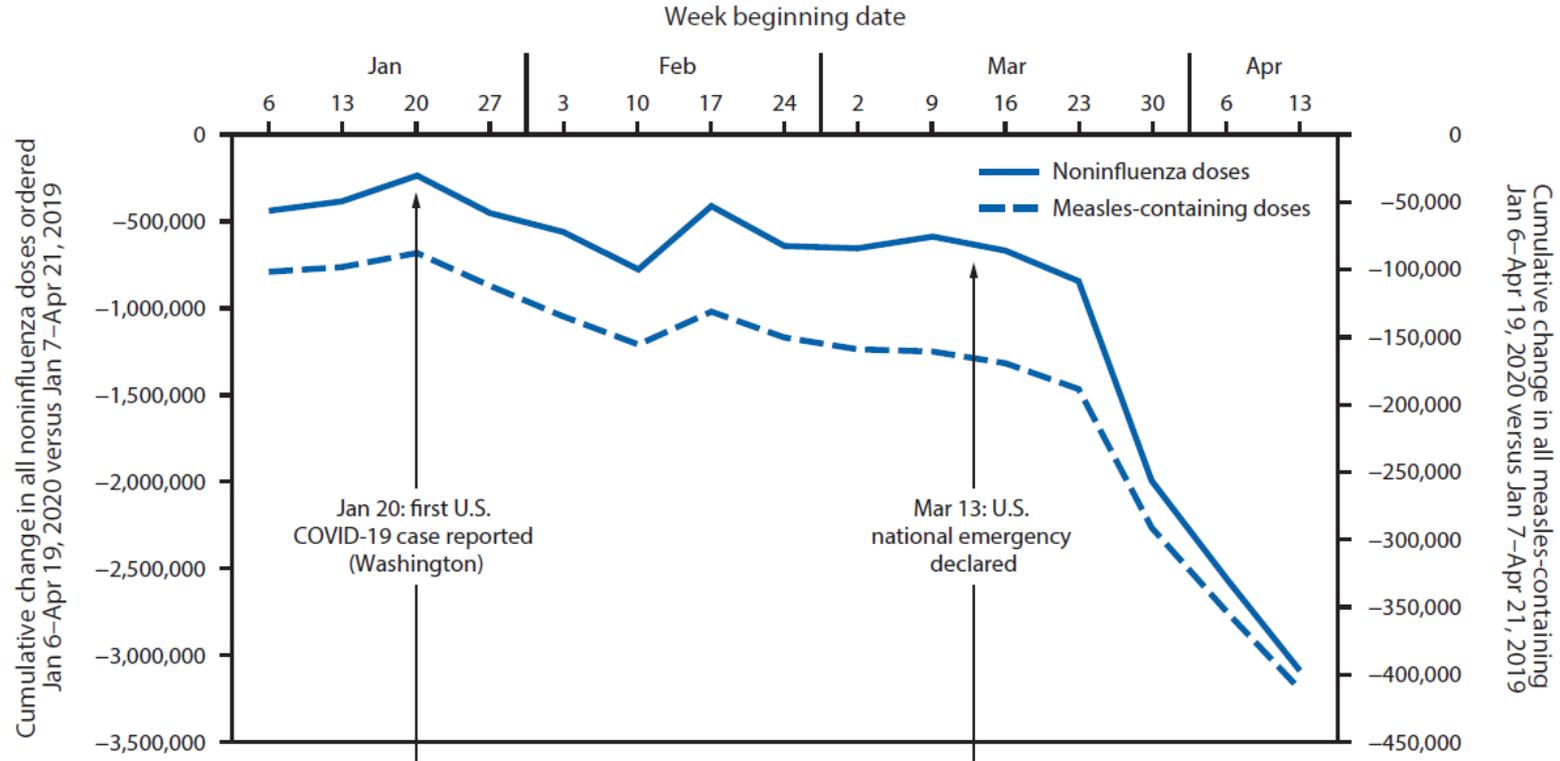


# HPV Vaccination Initiation ( $\geq 1$ dose HPV) and Prevalence of Provider Recommendation among Adolescents Aged 13-17 years, NIS-Teen, 2015-2020, United States



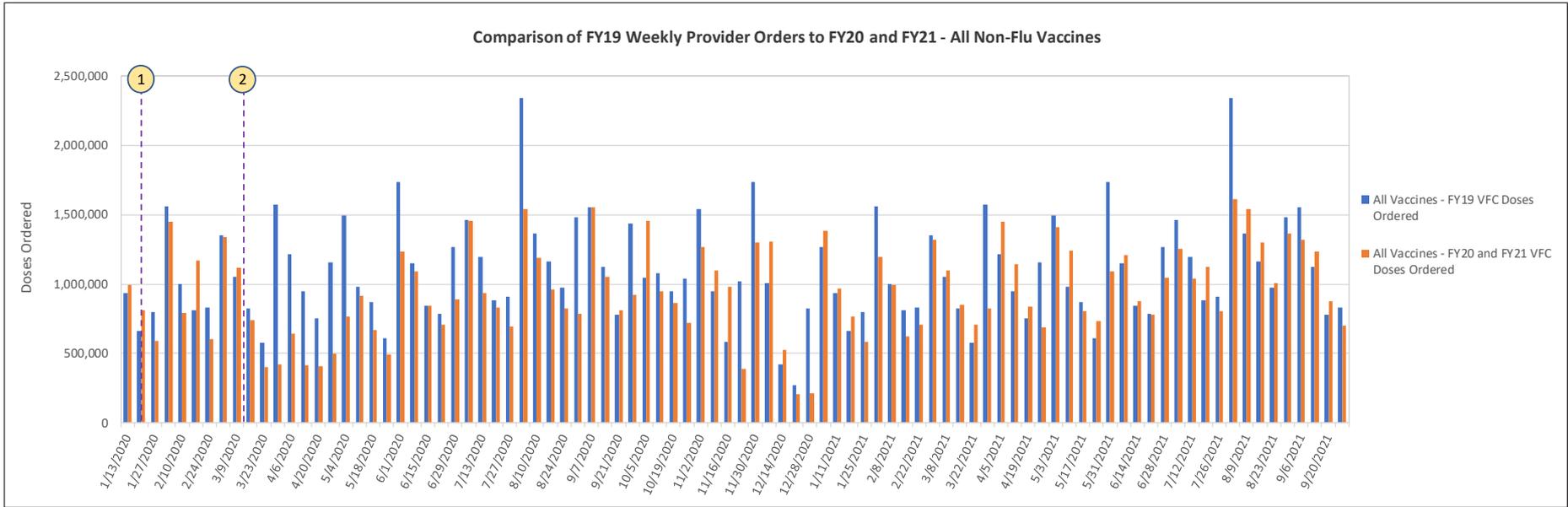
# Impact of COVID-19 Pandemic

# Weekly changes in Vaccines for Children program provider orders for pediatric vaccines – United States, January 6-April 19, 2020



\* VFC data represent the difference in cumulative doses of VFC-funded noninfluenza and measles-containing vaccines ordered by health care providers at weekly intervals between Jan 7–Apr 21, 2019, and Jan 6–Apr 19, 2020.

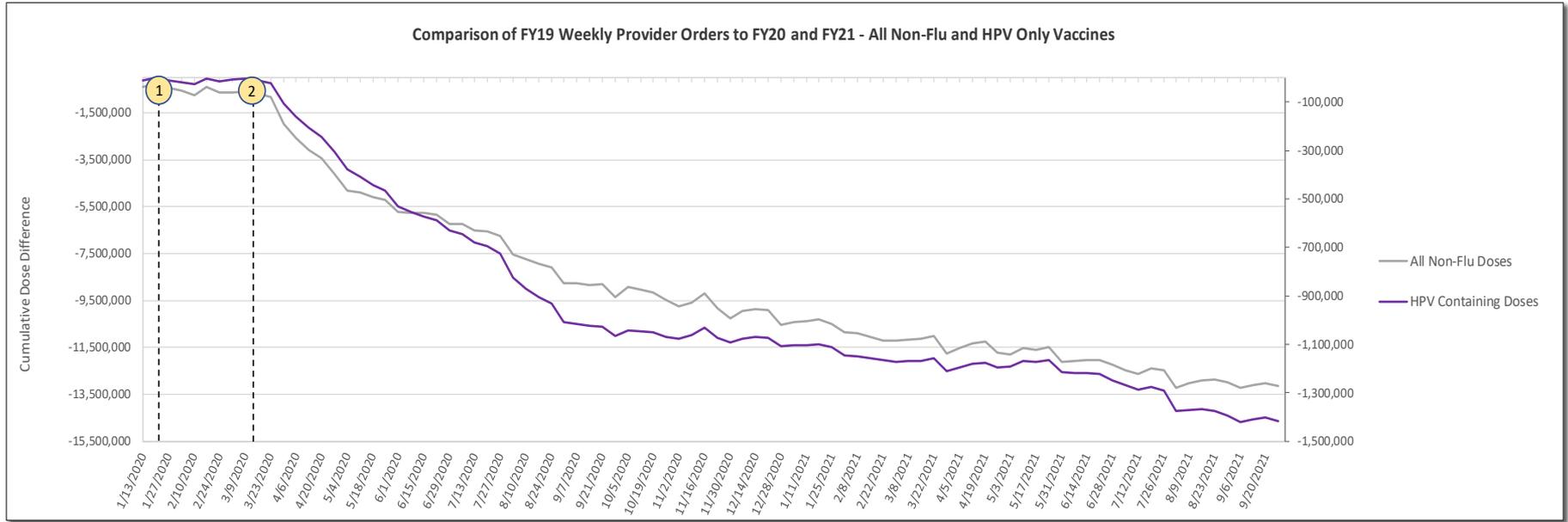
# VFC provider orders have rebounded...



**Notable Dates:**

- 1 1/20/2020: First US case reported (Washington state)
- 2 3/13/2020: US national emergency declared

# ...but there is still a substantial deficit for 2020-2021



**Notable Dates:**

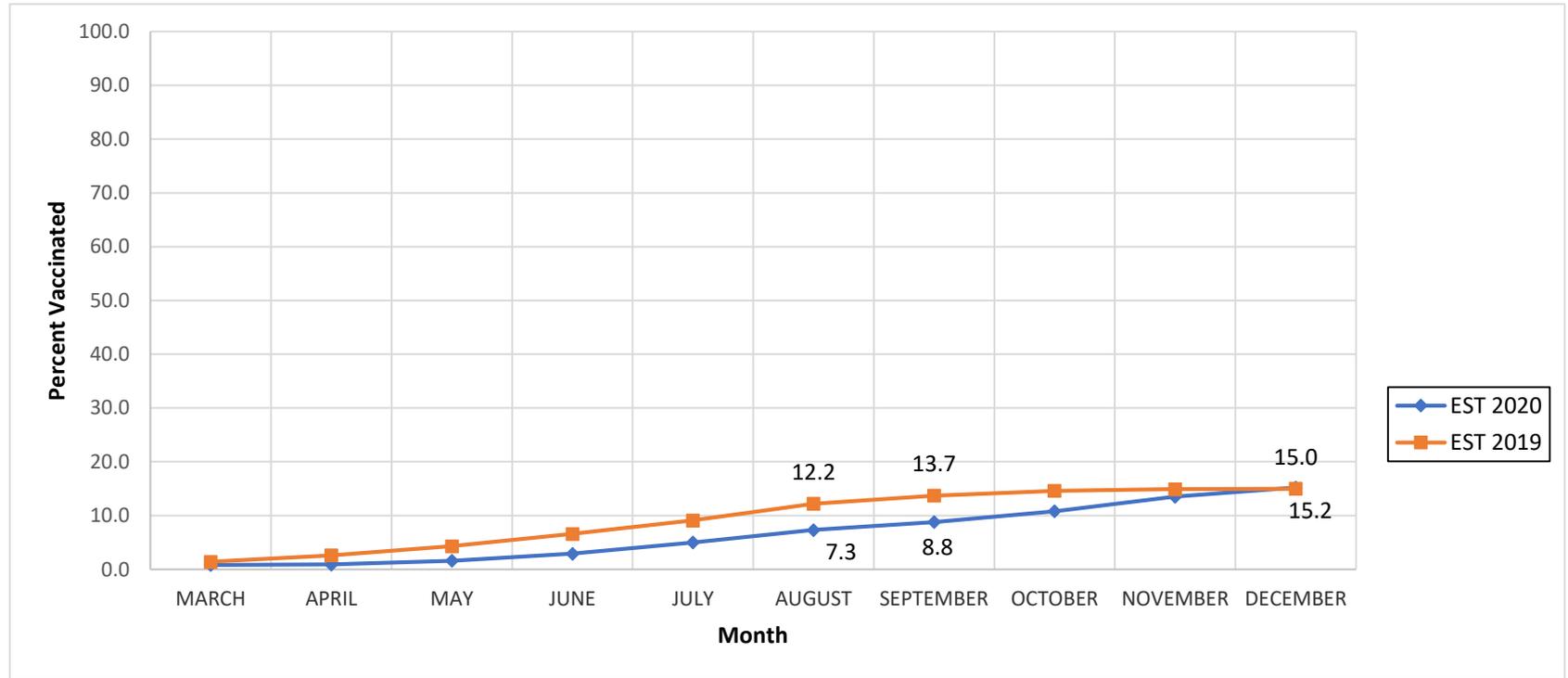
- 1 1/20/2020: First US case reported (Washington state)
- 2 3/13/2020: US national emergency declared

As of Oct 3, overall VFC provider orders (other than flu) are down by **13.2M doses** and orders for HPV are down by **1.4M doses**

## Given that VFC orders for HPV vaccine are down, how did HPV vaccination coverage increase in 2020?

- NIS-Teen includes children age 13-17 years (i.e., born between 2003-2007)
- Survey assesses vaccinations received throughout life and is not limited to vaccines administered in 2020
- Most teens included in the NIS-Teen started the vaccine series before the pandemic began
  - 73.6% of adolescents had initiated HPV vaccination **prior** to March 1, 2020
- Additional years of NIS-Teen data are needed to fully evaluate the impact of the COVID-19 pandemic on routine adolescent vaccination coverage

**Estimated vaccination uptake with ≥1 HPV vaccine dose among adolescents aged 13-17 years who had not received a dose of HPV vaccine as of March 1st -- National Immunization Survey–Teen (NIS-Teen), United States, 2019 and 2020**



- Coverage in the 2020 cohort was lower than 2019 by end of April
- Difference in uptake was greatest in August/September (-4.9 percentage points in both months)
- Difference in uptake between the cohorts was no longer statistically significant by end of November

# Summary and Call to Action

- HPV vaccination coverage **continues to improve** among adolescents.
- Among adolescents living at or above the poverty level, those living in rural areas have lower HPV up to date coverage compared with those living in urban areas.
- Coverage is **still threatened** by the disruption of routine medical services due to the COVID-19 pandemic. Limited opportunity to assess pandemic effects with 2020 NIS-Teen data.
- Now is the time for parents to schedule well teen visits so children can get needed vaccinations- catch up on missed doses and **stay on schedule**. Those aged 12+ eligible for a **COVID-19 vaccination**.

# Call to Action: Kids Need to Get Caught Up on Recommended Vaccines

- Healthcare systems and healthcare providers should:
  - Identify families whose children have missed doses and contact them to schedule appointments
  - Prompt clinicians when these children are seen to deliver vaccines that are due or overdue
  - Let families know what precautions are in place for safe delivery of in-person services
- Healthcare provider organizations should:
  - Encourage members to identify and follow up with families whose children have missed doses to get appointments scheduled

# Call to Action: Kids Need to Get Caught Up on Recommended Vaccines

- Schools and state and local governments agencies should:
  - Send reminders to families about school immunization requirements
  - Follow-up with families of children who are not in compliance with requirements to encourage compliance
  - Use the state's immunization information system's reminder-recall capacity to notify families whose children have fallen behind on vaccines
- We all should:
  - Communicate directly to families the importance of well-child visits and getting caught up on any recommended vaccines that were missed



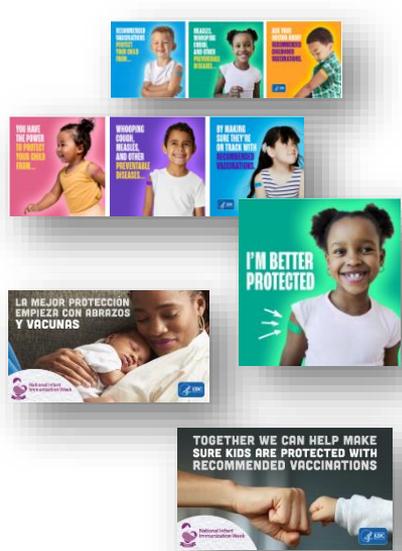
### **Communications Goal:**

- Encourage parents (specifically low-income families) to prioritize the need to catch their children up on routine childhood vaccinations
  - *increasing self-efficacy and perceived benefits to be elevated over perceived barriers*

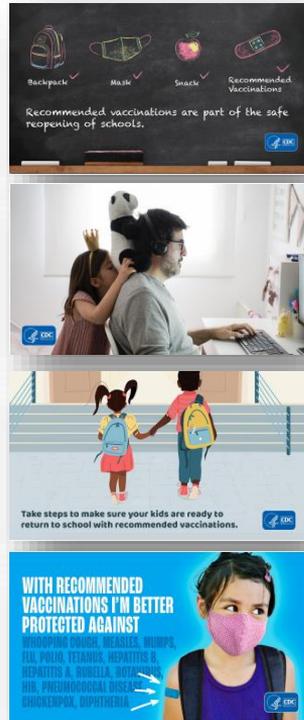
# Phase 1: Content for Parents

Assets include social media (carousels, animations, static) across platforms (Facebook, Twitter, Instagram, Pinterest), and an infographic to be leveraged on CDC flagship channels and shared with partners.

## General Catch-Up



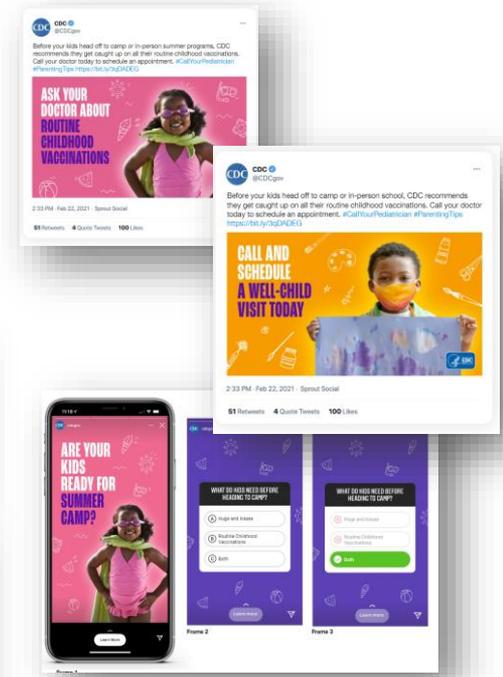
## Return to School



## Infographic-related content



## Summer Activities & Camp



# Phase 2: Updated Website Feature for Parents

## Catch Up on Well-Child Visits and Recommended Vaccinations

[Español \(Spanish\)](#)



During the COVID-19 pandemic, families have been doing their part by staying at home as much as possible to help stop the spread of COVID-19. An unfortunate result is that many children missed check-ups and recommended childhood vaccinations. CDC and the American Academy of Pediatrics (AAP) recommend every child continues to receive recommended vaccinations during the COVID-19 pandemic.

Resources for Encouraging Routine Childhood Vaccinations

These are challenging times, but you have the power to help keep your child healthy.

Making sure that your child sees their doctor for well-child visits and recommended vaccines is one of the best things you can do to protect your child and community from serious diseases that are easily spread.



## Well-Child Visits and Recommended Vaccinations Are Essential

Well-child visits and recommended vaccinations are essential and help make sure children stay healthy. Children who are not protected by vaccines are more likely to get diseases like measles and whooping cough. These diseases are extremely contagious and can be very serious, especially for babies and young children. In recent years, there have been outbreaks of these diseases, especially in communities with low vaccination rates.

Well-child visits are essential for many reasons, including:

- Tracking growth and developmental milestones
- Discussing any concerns about your child's health
- Getting scheduled vaccinations to prevent illnesses like measles and whooping cough (pertussis) and [other serious diseases](#)



As children return to in-person learning and care, it's particularly important for parents to work with their child's doctor or nurse to make sure they get caught up on missed well-child visits and recommended vaccines.



# Partner Resource Center

[Immunization Partners Home](#)

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Vaccinate with Confidence

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Resiliency of the US Vaccination System +

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Partnering for Vaccine Equity +

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**Childhood Immunization Resources** +

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Preteen & Teen Immunization Resources +

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Adult Immunization Resources

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Maternal Immunization Resources

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Influenza (Flu) Immunization Resources

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**Resources for Encouraging Routine Childhood Vaccinations**

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**Background**

COVID-19 disrupted both in-person learning and routine well-child visits for many children over the last year. CDC's public sector vaccine ordering data show a 14% drop in 2020-2021 compared to 2019, and measles vaccine ordering is down by more than 20%. CDC's [call to action](#) [1 page] outlined the steps that healthcare systems, health care providers, schools, state and local governments, and families can take to encourage catch up vaccination and protect children's health.

**On This Page**

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[Background](#)

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[Social Media Content](#)

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[Infographic](#)

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[Newsletter template](#)

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As opportunities for in-person learning and play continue to grow, help us protect children by doing what you can to get kids caught up on recommended vaccines.

**Catch up on Well Child Visits and Recommended Vaccinations**



Use [this web feature](#) as a link in your social media posts, newsletters or other communication.

**Resources for Health Care Professionals**



[Childhood Vaccination Communication Toolkit for Clinicians](#)

**Related Links**

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[Vaccines & Immunizations](#)

# Toolkit for Clinicians to Encourage Catch-Up

## Childhood Vaccination Toolkit for Clinicians

### Get Kids Caught Up on Recommended Vaccines for a Safer Return to School

COVID-19 disrupted both in-person learning and routine well-child visits for many children over the last year. As a result, too many children have fallen behind on receiving recommended vaccines.



CDC's public sector vaccine ordering data show a 14% drop in 2020-2021 compared to 2019, and measles vaccine is down by more than 20%.

Children need to get caught up now so that they are protected as they go back to in-person learning and summer camps. Healthcare providers can identify families whose children have missed doses and contact them to schedule appointments. Providers can also let families know what precautions are in place for safe delivery of in-person services.

### Call to Action

#### Help Kids' Safe Return to School – Get Caught Up on Recommended Vaccines

Please see CDC's Call to Action which highlights ways health care systems, health care providers, schools, state and local governments, and families can help get children caught up on vaccinations.

[View the PDF](#)

### COVID-19 Vaccination Resources

- [COVID-19 Vaccines for Children and Teens](#)
- [Pediatric Healthcare Professionals COVID-19 Vaccination Toolkit](#)
- [Considerations for Planning School-Located Vaccination Clinics](#)
- [How Schools Can Support COVID-19 Vaccination](#)

### Resources

- [Resources for Encouraging Routine Childhood Vaccinations](#)
- [Catch-up Immunization Schedule](#) for persons aged 4 months–18 years who start late or who are more than 1 month behind.
- [The Vaccines for Children Program](#) offers vaccines at no cost to eligible children through health care providers enrolled in the program. Children who are [eligible](#) for the Vaccines for Children (VFC) program can receive vaccines at no cost through a national network of participating health care providers. The [VFC Flyer for Parents](#) provides answers to common questions.
- [Reminder & Recall Systems](#) may be one of the most powerful ways to catch up those who are behind and ensure optimal vaccination rates.

# Additional Immunization Resources for Partners

🏠 Immunization Partners Home

Vaccinate with Confidence

Resiliency of the US Vaccination System +

Partnering for Vaccine Equity +

Childhood Immunization Resources +

Preteen & Teen Immunization Resources +

Adult Immunization Resources

Maternal Immunization Resources

Influenza (Flu) Immunization Resources

## Planning for Vaccination during the COVID-19 Pandemic

### Call to Action

#### Help Kids' Safe Return to School – Get Caught Up on Recommended Vaccines

COVID-19 disrupted both in-person learning and routine well-child visits for many children over the last year. As a result, too many children have fallen behind on receiving recommended vaccines. Please see CDC's Call to Action which highlights ways healthcare systems, health care providers, schools, state and local governments, and families can help get children caught up on vaccinations.

[View PDF](#)

### COVID-19 Vaccination Resources

Find information for professionals on COVID-19 vaccination administration, storage and handling, reporting, data & reporting systems, recipient education, and more.

[COVID-19 Vaccination](#)

## Educational and Promotional Resources for Partners

Find resources for each group or topic, including toolkits, drop-in articles, digital media tools, videos, PSAs, fact sheets, and social media messages.

### Resiliency of U.S. Vaccination System



Healthcare providers throughout the United States are helping individuals stay on track with routine and seasonal flu vaccinations, while preparing to administer COVID-19 vaccines.

[Resiliency of the Vaccination System](#)

### Equity in Adult Vaccination



CDC's vision is to reduce racial and ethnic disparities that exist in immunization through partnerships that drive community-level action and support racial and ethnic minority communities.

[Partnering for Vaccine Equity](#)

### Vaccinate with Confidence



*Vaccinate with Confidence* is CDC's strategic framework to strengthen vaccine confidence and prevent outbreaks of vaccine-preventable diseases in the United States.

[Vaccinate with Confidence](#)



Childhood Immunization Resources



Preteen & Teen Immunization Resources



Maternal Immunization Resources



Adult Immunization Resources



Flu Immunization Resources

<https://www.cdc.gov/vaccines/partners/>

# Additional Resources

- Vaccines & Immunizations <https://www.cdc.gov/vaccines/index.html>
- Educational and Promotional Resources for Immunization Partners [www.cdc.gov/vaccines/partners](http://www.cdc.gov/vaccines/partners)
- Provider Resources for Vaccine Conversations with Parents <https://www.cdc.gov/vaccines/hcp/conversations/>
- Vaccines for Children Program (VFC) [www.cdc.gov/vaccines/programs/vfc](http://www.cdc.gov/vaccines/programs/vfc)

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

